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10/718,199	11/20/2003	Georgios Chrysanthakopoulos	MSFT121368	9817

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EXAMINER	
EL CHANTI, HUSSEIN A	

ART UNIT	PAPER NUMBER
2157	

NOTIFICATION DATE	DELIVERY MODE
02/22/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/718,199	CHRYSANTHAKOPOULOS ET AL.	
	Examiner	Art Unit	
	HUSSEIN A. EL CHANTI	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 November 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/1/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to application filed on Nov. 20, 2003. Claims 1-40 are pending examination.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 and 3-26 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, claims 1 and 19 recite in the preamble "a computer system comprising"; claim 9 recites "a networked system...comprising:"; , the body of the claims do not contain any limitations indicating the structure of the system. A system or an apparatus claim should always claim the structure or the hardware that performs the function. Applicant's claimed limitations consist of modules (software according to the specification) that do not describe the structure of the device. Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1 and 3-26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

4. Claim claims 1 and 19 recite in the preamble "a computer system comprising"; claim 9 recites "a networked system...comprising:". The body of claims 1-26 include software for each limitation. Therefore claims 1-26 are non-statutory because it is directed towards software, per se, lacking storage on a medium, which enables any underlying functionality to occur. It is not clear whether instructions are in executable form and therefore there is no practical application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-8 and 27-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Combs et al., U.S. Patent No. 6,766,348 (referred to hereafter as Combs).

As to claim 1, Combs teaches a computer system, comprising: services for representing resources, each service including a designation primitive,

a behavioral primitive that comprises a unilateral contract, and a communication primitive (see col. 5 lines 64-col. 6 lines 37, RASP establishes a communication session that provides acceptable protocol and acceptable order in which services may be invoked); and

a decentralized operating system for orchestrating the services executing on the computer system so as to control and coordinate resources (see col. 6 lines 17-47, col. 2 lines 38-65 and col. 1 lines 35-51).

As to claim 2, Combs teaches the computer system of claim 1, wherein the computer system includes a microcomputer, a personal digital assistant, a cellular phone, or a display (see col. 2 lines 5-15).

As to claim 3, Combs teaches the computer system of claim 1, wherein the designation primitive includes a port identifiable by an identifier that includes a uniform resource identifier (see col. 7 lines 64-col. 8 lines 2).

As to claim 4, Combs teaches the computer system of claim 3, wherein the port is endued with a behavior type as specified by a unilateral contract (see col. 7 lines 57-col. 8 lines 2).

As to claim 5, Combs teaches the computer system of claim 1, wherein a unilateral contract of the behavioral primitive defines a protocol for exchanging messages in a particular order with a service to whom the unilateral contract belongs (see col. 4 lines 15-39).

As to claim 6, Combs teaches the computer system of claim 5, wherein the communication primitive includes a set of message types usable in the messages exchanged among services so as to call a service to perform a certain task (see col. 4 lines 15-39).

As to claim 7, Combs teaches the computer system of claim 6, wherein the decentralized operating system separates the control information from the data information in the messages when the messages are exchanged (see col. 5 lines 50-63).

As to claim 8, Combs teaches the computer system of claim 1, wherein services include services (see col. 5 lines 1-27).

As to claims 27 and 35, Combs teaches a method implemented on a computer system, comprising:

assigning a first unique name to a first service upon request, the first service including a first unilateral contract for expressing the behaviors of the first service; and

distributing a message to the first service using the unique name, the message being sent by a second service having a second unique name, the second service including a second unilateral contract for expressing the behaviors of the second service (see col. 5 lines 64-col. 6 lines 37 and col. 11 lines 1-67, RASP establishes a communication session that provides acceptable protocol and acceptable order in which services may be invoked).

As to claims 28 and 36, Combs teaches the method of claim 27, further comprising loading a network manager and other services according to instructions written in a customizable, tag-based language (see col. 7 lines 1-20).

As to claims 29 and 37, Combs teaches the method of claim 28, further comprising spawning a service to listen for incoming messages for the first service that has been assigned the first unique name (see col. 5 lines 64-col. 6 lines 37, RASP establishes a communication session that provides acceptable protocol and acceptable order in which services may be invoked).

As to claims 30 and 38, Combs teaches the method of claim 29, further comprising rejecting the message without distributing the message if a structure of the message fails to comply with a protocol for exchanging structured and type information of messages written in a customizable, tag-based language (see col. 7 lines 1-20).

As to claims 31 and 39, Combs teaches the method of claim 30, further comprising forwarding the message to the first service without routing the message through the network manager if the first service and the second service runs on a computer system (see col. 5 lines 64-col. 6 lines 37, RASP establishes a communication session that provides acceptable protocol and acceptable order in which services may be invoked).

As to claims 32 and 40, Combs teaches the method of claim 30, further comprising forwarding the message to the first service by routing the message through the network manager if the first service runs on a first computer system whereas the second service runs on a second computer system (see col. 13 lines 5-64).

As to claim 33, Combs teaches the method of claim 32, wherein the act of forwarding including transmitting data information separately from transmitting control

information (see col. 5 lines 64-col. 6 lines 37, RASP establishes a communication session that provides acceptable protocol and acceptable order in which services may be invoked).

As to claim 34, Combs teaches the method of claim 33, wherein the act of transmitting includes transmitting data information in accordance with transmitted control information (see col. 5 lines 64-col. 6 lines 37, RASP establishes a communication session that provides acceptable protocol and acceptable order in which services may be invoked).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 9-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Combs in view of Baskey et al., U.S. Patent No. 7,089,294 (referred to hereafter as Baskey).

As to claim 9, Combs teaches a networked system for networking computer systems, comprising:

a first decentralized operating system executing on a computer system (see col. 5 lines 64-col. 6 lines 37, RASP establishes a communication session that provides

acceptable protocol and acceptable order in which services may be invoked), which includes:

a first distributing operating system for designating uniform resource identifiers for a first set of services and distributing messages among the first set of services, each service including a unilateral contract, the unilateral contract expressing behaviors of the service (see col. 6 lines 17-47, col. 2 lines 38-65 and col. 1 lines 35-51).

Combs does not explicitly teach that the operating system is a kernel based operating system. However, Baskey teaches a system and method including allocating resources to a plurality of clients using kernel (see col. 4 lines 13-36).

It would have been obvious for one of the ordinary skill in the art at the time of the invention to use kernel in the operating system of Combs because doing so would allow the server that received the request to allocate resources based in the application level information and provides the assigned type of service classification to the communication process.

As to claim 10, Combs teaches the networked system of claim 9, wherein services includes device drivers for devices (see col. 5 lines 54-col. 6 lines 16).

As to claim 11, Combs teaches the networked system of claim 9, further comprising a process operating system for communicating messages as processes among services (see col. 5 lines 54-col. 6 lines 16 and col. 7 lines 1-20).

As to claim 12, Combs teaches the networked system of claim 10, further comprising an operating system operating system for managing memory, controlling devices, maintaining time and date, and allocating system resources (see col. 7 lines 1-37).

As to claim 13, Combs teaches the networked system of claim 9, further comprising a network coupled to the first computer system, the network is selected from a group consisting of high bandwidth, low latency systems; high bandwidth, high latency systems; low bandwidth, high latency systems; and low bandwidth, low latency systems (see col. 1 lines 14-30).

As to claim 14, Combs teaches the networked system of claim 13, further comprising a second decentralized operating system executing on another computer system coupled to the network, which includes: a second distributing operating system for designating uniform resource identifiers for a second set of services and distributing messages among the second set of services, each service including a unilateral contract, the unilateral contract expressing behaviors of the service (see col. 11 lines 20-50).

As to claim 15, Combs teaches the networked system of claim 14, wherein a resource being represented as a service from the second set of services is orchestrated by the first distributing operating system (see col. 11 lines 20-50).

As to claim 16, Combs teaches the networked system of claim 14, wherein a service from the second set of services registers with the first distributing operating system to obtain a uniform resource identifier (see col. 7 lines 64-col. 8 lines 2).

As to claim 17, Combs teaches the networked system of claim 14, wherein the first distributing operating system distributes a message to a service from a first set of service, the message being sent by a service from a second set of services (see col. 11 lines 35-51).

As to claim 18, Combs teaches the networked system of claim 14, wherein the first decentralized operating system orchestrates a composition of a service from a first set of services and a service from a second set of services (see col. 11 lines 35-51).

As to claim 19, Combs teaches a computer system, comprising:

a decentralized operating system that includes a distributing operating system, comprising:

a URI manager for managing names, each name constituting a unique designation of a service at the computer system so that the service can be discovered; and a message dispatcher for forwarding messages among services, each service being identifiable by a name managed by the URI manager, each service being associated with a unilateral contract (see col. 5 lines 64-col. 6 lines 37,, col. 11 lines 19-51 RASP establishes a communication session that provides acceptable protocol and acceptable order in which services may be invoked).

Combs does not explicitly teach that the operating system is a kernel based operating system. However, Baskey teaches a system and method including allocating resources to a plurality of clients using kernel (see col. 4 lines 13-36).

It would have been obvious for one of the ordinary skill in the art at the time of the invention to use kernel in the operating system of Combs because doing so would allow the server that received the request to allocate resources based in the application level information and provides the assigned type of service classification to the communication process.

As to claim 20, Combs teaches the computer system of claim 19, wherein the distributing operating system further comprises a security manager for controlling authentication and authorization of rights and restrictions among services (see col. 5 lines 64-col. 6 lines 37) .

As to claim 21, Combs teaches the computer system of claim 19, wherein the distributing operating system further comprises a service loader for executing a sequence of instructions for loading components and services, the service loader being capable of dynamically loading or unloading services during the operation of the decentralized operating system (see col. 5 lines 64-col. 6 lines 37, RASP establishes a communication session that provides acceptable protocol and acceptable order in which services may be invoked).

As to claim 22, Combs teaches the computer system of claim 19, wherein the URI manager receives a register message from a service to obtain a unique designation

and assigns the unique designation to the service, the URI manager being capable of receiving an unregister message for removing an assigned unique designation from a registry (see col. 11 lines 34-67).

As to claim 23, Combs teaches the computer system of claim 19, wherein the message dispatcher forwards a message from a first service to a second service if the first service has a first uniform resource identifier assigned by the URI manager and the second service has a second uniform resource identifier assigned by the URI manager (see col. 11 lines 34-67).

As to claim 24, neither Combs not Baskey teaches the messages use SOAP. Official notice is taken that it would have been obvious for one of the ordinary skill in the art at the time of the invention to sue SOAP because doing so would make the system more efficient and compatible with other systems by running HTML and XML.

As to claim 25, Combs teaches the computer system of claim 19, further comprising a network manager for distributing messages forwarded by the message dispatcher to another computer system (see col. 11 lines 34-67).

As to claim 26, Combs teaches the computer system of claim 25, wherein the network manager comprises a serializer/deserializer, a transmission protocol processor, and a control/data plane separator (see col. 11 lines 34-67 and fig. 14).

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUSSEIN A. EL CHANTI whose telephone number is (571)272-3999. The examiner can normally be reached on Mon-Fri 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571)272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hussein Elchanti

Feb. 18, 2008